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THE JOURNAL OF PHILOSOPHY

SELF-DETERMINATION AND THE CONFLICT BETWEEN NATURALISM AND NON-NATURALISM

I

TODAY there exists in value theory an impasse that is generally accepted as irresoluble. There are those, on the one hand, who consider value qualities to be different in kind from non-value qualities and there are those, on the other, who consider value qualities to be similar in kind to non-value qualities. It is the purpose of this paper to suggest that there exists a middle-ground between non-naturalism and naturalism and that this middle-ground is revealed by consideration of "self-determination."

The intuitionist—as an extreme representative of non-naturalism—bases his opposition to naturalism upon a belief in man as self-determined. Self-determination is viewed as man's capacity to determine and apprehend values independently of both organic needs and environmental demands. By virtue of self-determination man can consider himself and other objects as valuable and capable of attaining value apart from their functions in satisfying or being subject to such needs and demands.[1]

To note that a belief in self-determination is crucial to the intuitionist's opposition to naturalism certainly does not indicate an area of agreement between non-naturalism and naturalism. It does not primarily because much naturalist opposition to non-naturalism is based upon the belief that self-determination does not exist. However, if there is evidence, that naturalists would accept, for the existence of self-determination, then there is reason to hope for an end to the impasse between non-naturalism and naturalism. What follows will be a presentation of such evidence and a consideration of its implications for value theory.

[1] For a more complete description of "self-determination," upon which this summary description is based, see: Vivas, Eliseo, *The Moral Life and the Ethical Life* (University of Chicago Press, 1950), pp. 330-338.

II

Ethical naturalism argues, at a minimum, that the study of human nature is an essential adjunct of value theory. Evidence from psychology, therefore, is acceptable, and it is to contemporary psychology that we shall turn. Specifically, we shall consider the nature of the self as described by contemporary psychological functionalism.[2] While behaviorism will thus be considered only indirectly, it should be pointed out that behaviorism does not exclude, by the nature of its method, the postulation of an intervening variable having characteristics the non-naturalist attributes to the "self." If the "self" as a concept to explain experimental results can be specified in terms of a set of converging operations and if it has superior explanatory usefulness, then the behaviorist has no *a priori* reason for rejecting it.[3] In pointing this out an area of agreement between functionalists and formalists is indicated. Both groups would insist that the "self" should be considered as an aspect of man as perceiving ". . . only if his behavior makes any other explanation too improbable to accept."[4] What the non-naturalists contend is precisely that without the assumption of self-determination human behavior cannot be cogently explained. Let us consider the degree of support for this contention that can be derived from contemporary psychology.

In presenting a theory of self from contemporary psychology no attempt will be made to present the history of that theory or to list the experiments supposed to support it. Rather the theory will be presented in a form that will allow comparison with the non-naturalistic view of self-determination. However, for the conscientious reader a brief outline of its theoretical background may be helpful.

The theoretical framework of the theory to be presented was provided by Floyd H. Allport.[5] Allport views the perceptual act as a dynamic structure composed of all the determinants of perception. One of these components is the self, or, as Allport terms

[2] "Functionalism" is, briefly, the view that men perceive what they want to, or what is useful to them, and is opposed to "formalism" which restricts the study of perception to observed behavior or stimulus conditions. "Formalism" includes, but is not necessarily co-extensive with, "behaviorism." *Cf.* Prentice, W. C. H., "Functionalism in Perception," *The Psychological Review*, Vol. 63, pp. 29–38.

[3] Garner, Hake, and Ericksen, "Operationism and the Concept of Perception," *The Psychological Review*, Vol. 63, pp. 149–159.

[4] Prentice, *loc. cit.*, p. 31.

[5] Allport, F. H., *Theories of Perception and the Concept of Structure* (John Wiley and Sons, 1955).

it, the "personality." In his general theory of perception Allport attempts to mediate between functionalistic and formalistic perceptual theories. The nature of such mediation is best illustrated by the use he makes of Bruner and Postman's functionalism and Hebb's formalism. The "hypothesis theory" of Bruner and Postman [6] is so called because their central concept is a pre-disposition, or hypothesis, on the part of the individual which organizes and transforms incoming stimuli. The hypothesis is established by patterns of stimulus information *and* the individual's responses, and it persists as a determinant of perceptual experience. The strength of its persistence is directly proportional to the frequency of its past confirmations, its lack of need for informational support, its motivational support, and the degree to which it is imbedded in a larger cognitive organization. The hypothesis, so described, is a construct highly useful in explaining non-veridical or selective perception.

Hebb's theory,[7] contrary to Bruner and Postman's, is a neurophysiological theory of perception. Hebb holds that innate cortical activity is intrinsically organized in terms of autonomous synchrony of firing of cortical neurons. This organization—innate control—is gradually overlaid and modified by nerve-cell assemblies established by external stimulation of the sensory cortex. This externally established organization is called "sensory control." The organization that results from the interplay of innate control and sensory control is termed "central control." Central control tends to persist and seek its own organic integrity, but it is continually interacting with sensory control. Hebb attempts to explain all forms of behavior in terms of the interaction between central and sensory control. The neural structure—nerve-cell assembly—which is the basic element in his theory is an entity which persists and can be modified by both further sensory stimulation and integration with similar structures organized by central control. The nerve-cell assembly, then, can be viewed as the physiological correlate of Bruner and Postman's hypothesis.

Allport relies upon Bruner and Postman's theory in his explanation of non-veridical perception. Every perceptual act is viewed as a structure of two stages. The first stage is the pre-

[6] Bruner, J. S., "Personality Dynamics and the Process of Perceiving," in *Perception—An Approach to Personality*, edited by Blake and Ramsey (The Ronald Press, 1951), pp. 121–147; Postman, Leo, "Toward a General Theory of Cognition," in *Social Psychology at the Crossroads*, edited by Roher and Sherif (Harper, 1951), pp. 242–272.

[7] Hebb, O. D., *The Organization of Behavior* (John Wiley and Sons, 1949).

disposition, or hypothesis, and the second is the combination of a pre-disposition with a stimulus-input. Veridical perception results from the combination of a stimulus-input with a pre-disposition that is constantly confirmed. Non-veridical perception results from the combination of a pre-disposition that requires only a weak stimulus-input for completion with such a stimulus-input. Allport relies upon Hebb's theory to explain behavior in general. In brief, emotional disturbances are due to conflicts between central and sensory control. The primary drives result from a type of central-sensory conflict that is induced by changes in the blood chemistry which affect neural firing. Pleasure is the state of the reduction of any central-sensory conflict. Motivated behavior is behavior under the control of organized central activity which, by its persistence, determines the mode of interaction between sensory and central control—plus optimum stimulation of the arousal system.[8] In conscious behavior this persistence of central activity is maintained by sensory and central interfacilitation.

For Allport the self, in Hebb's terms, is the dominant form of organized central activity which maintains sensory-central interfacilitation;[9] in Bruner and Postman's terms, the self is a unified system of those hypotheses established by responses of the organism that have been relatively effective in satisfying the standard or constant needs of the physical organism. With this background Allport's theory of self can be elaborated in terms more philosophical.

It is to be noted, first, that the self as described above is the common structural core of all those behavioral responses that have effectively resolved conflicts between the physical organism's internal needs and the capacity of its environment to satisfy those needs. As such a structure, the self persists and dominates behavior as long as it is effective in satisfying those needs. In order for the self to so persist and dominate behavior it must be a system open to both the external environment and the physical organism so that it is capable of integrating internal and external demands. The self, if successful, is then not only an open system, but it is also a dynamic system capable of flexibility in the face of changes on the part of the determinants of experience. Finally, the self, though delineated in terms of its relations to the external environ-

[8] For this later modification of his view of motivated behavior see: Hebb, O. D., "Drives and the C. N. S. (Conceptual Nervous System)," *The Psychological Review*, Vol. 62, pp. 246–300.

[9] It should be stressed that Hebb deliberately avoids the use of any concept such as the "self," but, as indicated earlier, Allport's use of Hebb's theory in this fashion is not precluded by the assumptions of Hebb's operationism.

ment and the physical organism which comprehends it, is in a sense distinct from what it is related to. This separateness is found in its existence as that structure that is both the integrator of its constituents and the product of their interaction.[10] Elaboration of this last point will lead to a basis of comparison with the non-naturalistic concept of self.

According to the theory cited above, the self is a structure constituted by the integration of the impacts of the external environment upon the physical organism with the responses of the physical organism to such impacts. How, then, can it also be the integrator of its constituents? To answer this it must be stressed that the self, as viewed above, is not an unchanging something, part and parcel of each new-born infant. It is rather a component of the acting organism that originates in the learning and remembering of those responses that allow the organism continued reductions of conflict between it and the environment. Such responses, when so retained, form a system of pre-dispositions which in turn colors and modifies ongoing behavior, and which is itself constantly modified by ongoing behavior. Thus, the self is a structure that originates within the physical organism, which mediates between the physical organism and its environment, and which is altered by serving as such a mediator.

Thus, according to the present theory, there are two aspects of the self that are distinct and yet interrelated aspects of one structure. First, the self is to be considered as that which is created and constantly modified by the interaction between the physical organism and its environment. Second, the self is to be considered as that which determines and controls that interaction. It is this second aspect of the self that is comparable to the non-naturalistic concept of self.

The self, as viewed by non-naturalists, is capable of determining its actions independently of the influence of both organic needs and environmental events. This same ability is attributed to the self

[10] As should be clear from this paragraph, Allport's self is construed as both part of the physical organism and an aspect of the physical organism capable of modifying behavior independently of the present demands of the rest of the physical organism. The physical organism apart from the self is the physical organism considered as only a system of present primary drives modified by sense stimuli. The self, or, in better terms, the self-determined physical organism, is separable from the physical organism as not self-determined in terms of a unique function. This function is the integration of the present demands of the physical organism with the demands imposed by the external environment. Henceforth the term "physical organism" shall be used to refer to the physical organism as only a system of present drives modified by sense stimuli.

in the above psychological theory as the self functions as the integrator of those factors which originate and modify it. In short, the self of the non-naturalists can be identified with the psychological self in one of its functions. However, this identification is not absolute. The self of the non-naturalists and the psychological self are similar only in that the same ability—self-determination—is attributed to both.

Let us now assume, for the purposes of this paper, that the theory of self derived from contemporary psychology is basically accurate.[11] If this is so, then the non-naturalistic view of the self gains support by this theory. Such support, however, is limited because in the psychological theory the self is considered to be an aspect of the physical organism that does not have existence apart from the physical organism. The non-naturalists contend, on the other hand, that there is a basic qualitative difference between the self and the physical organism, that there is nothing concerning the substantial nature of the self that is open to psychological investigation.[12] This contention on the part of the non-naturalists is based, at least in part, upon the failure of previous psychological concepts of the self to account for self-determination.[13] Given a psychological concept of the self that does account for self-determination, the non-naturalists should be willing to apply Occam's razor to their own concept of the self. If self-determination can be accounted for without postulating a self qualitatively distinct from the physical organism, why make such a postulation?

The naturalists, on the other hand, should seriously consider the possibility that there is more to man than an integrated nexus of internal needs and external pressures. They should consider the possibility that the self is also the agent of such integration. The acceptance of such a view would necessitate the admission of a distinction between what is valued as satisfying such needs and

[11] Allport's theory is consistent with the general psychological view that ". . . might fairly be called 'official' American psychology of perception today" (Prentice, *loc. cit.*, p. 30). A fellow exponent of this view states that Allport has taken ". . . a fresh look at the field, sorting out all the findings and evaluating the theoretical positions" and, in so doing, has performed ". . . superb service" (Bruner, J. S., "On Perceptual Readiness," *The Psychological Review*, Vol. 64, p. 123). We will not presume to evaluate the *theory* of self under consideration other than by such references.

On the other hand, any tendency to construe the *theory* as a statement of metaphysical laws must be guarded against, for the evidence supporting this theory is admittedly incomplete and, perhaps, pre-selected. Our present use of Allport's views has as its only purpose to serve to suggest a new look at the concept of self-determination by value-theorists.

[12] Vivas, *op. cit.*, pp. 337–338.

[13] *Ibid.*

pressures and what is valued by the self independent of such needs and pressures. Many naturalists, though troubled by the "animalistic" implications of naturalism, have held back from admitting such a distinction because all psychological evidence appeared to be to the contrary. It is to such naturalists that the following is primarily addressed.

III

Though it has been indicated that Allport's theory of self implies a certain sense in which a distinction between "value" and "fact" must be made, it has not been made clear what that "certain sense" is.

In terms of the psychological theory, the aim of the self as it is functionally independent of its constituents is its own preservation as an agent capable of integrating its constituents. In pursuing this aim the self must often override the present demands of the physical organism and the external environment. What it values in such instances are experiences that contribute to its effective long-term existence. The nature of such experiences may be described in terms of their limiting extremes. One extreme would be those experiences which as a class contribute to the integrity of the self at the expense of the physical organism. A pre-disposition to be honest may be so crucial to self-integrity, for example, that a man would starve himself rather than steal food. The other extreme would be those experiences which as a class contribute to the physical organism at the expense of the continuing integrity of the self. A self may be so poorly organized or severely disrupted that a man would sell his birthright for a mess of pottage. In other words, one of the functions of self-determination is preservation of the physical organism, but continued preservation of the physical organism requires preservation of self-determination. Conversely, preservation of self-determination at the expense of the physical organism is destructive to both. Both functions of self-determination are interdependent, and it is meaningless to give either one priority in value theory. What the self values is continued existence of itself as the effective integrator of its constituents, which includes continued existence of the physical organism.[14]

[14] It might be argued that human beings can live for many years without a significant degree of self-determination, but it can be pointed out that such a life does not allow the continued resolution of sensory-central conflict. In such cases this conflict is evidenced in mental disorders rather than in obvious and sudden destruction of the physical organism. Cf. Rogers, Carl R., "Perceptual Reorganization in Client-Centered Therapy," in Blake and Ramsey, *op. cit.*, pp. 259–278.

Thus, in ethical terms the distinction between "value" and "fact" implied by the above psychological theory of self cannot be as sharp as that proposed by non-naturalism, nor can it be as vague or non-existent as naturalism suggests. The nature of this middle position can be indicated by considering the extremes of emotivism and intuitionism.

Emotivism in general argues that value-judgments are only expressions of feelings, and, while it may be important to investigate the causes of such feelings, such investigation belongs to psychology and sociology.[15] Intuitionism in general argues that value-judgments are expressions of an inner moral consciousness which directly apprehends the good. While value-judgments may also be expressions of feelings, they are always expressions of an apprehension of a quality other than merely "approved" or "pleasant." When the emotivist turns to psychology he finds support for his view in descriptions of the human organism as nothing more than a bundle of primary drives modified by the environment. Inasmuch as such descriptions preclude the existence of self-determination they preclude the possibility that value-judgments are more than expressions concerning experiences that are approved or pleasant because they satisfy primary drives. Since such psychological descriptions tend to refute intuitionism, the intuitionist rejects psychology and even contends that psychology has nothing to offer value theory. However, the theory of self considered above does support the view of self-determination stressed by intuitionism. It also supports emotivism to the extent that it asserts the interdependency of the physical organism and and that component of it that is capable of self-determination.

Thus, the theory of self considered implies that there is both a sense in which what is valuable has a basis in physical needs as present norms and a sense in which what is valuable is contrary to such norms and unique by contradistinction. What the emotivist has stressed, as a psychological buttress to his position, is the concept of self as merely the product of physical drives modified by environmental forces. In overlooking the aspect of self as the integrator of such drives and forces he has overlooked valuation that is independent by its opposition to such drives and forces. Philosophers and non-philosophers have long insisted on the possibility of such valuation because they introspectively experienced value-decisions that countered the demands of the physical organism. In this kind of introspective experience lies the appeal of

[15] Cf. Ayer, A. J., *Language, Truth, and Logic* (Victor Gollancz, Ltd., 1936), Chap. VI.

intuitionism which insists that within man there is a moral agent that does more than merely follow internal drives and external pressures. But intuitionism rings false ultimately when we realize the implications of the fact that within all of us there is a breaking point which when passed makes us completely subject to only such drives and pressures.

At this point both emotivists and intuitionists may have formulated what they consider to be crucial objections. In order to clarify the position presented, we shall attempt to anticipate and answer these objections. The emotivist will probably be impelled to point out that the self of Allport's theory, even though it may dominate the physical organism in its interaction with the world, controls behavior only in terms of previous satisfactions of the physical organism. Thus, the basis of valuation is simply what the physical organism desires. That the physical organism may desire something more subtle than the satisfaction of primary drives is possible but beside the point. In what meaningful sense, then, can non-naturalistic value-seeking be attributed to the self?

The intuitionist may well claim to have an equally strong objection. In Allport's theory the self is viewed as capable of overriding the present demands of the physical organism for the sake of continued and consistent satisfaction of the physical organism. The intuitionist can agree with what this theory implies—that there must be an aspect of man that stands apart from and determines the responses of the physical organism. But he will not agree that this aspect of man is substantially comprehended within the physical organism. A self which is merely the outgrowth of previous satisfactory responses on the part of the physical organism cannot possess the ability to counter the desire of the physical organism to continue such responses.

By way of preliminary answer to these objections two points must be stressed. First, Allport's theory does not attribute to the self any "non-naturalistic" value-seeking, if by "non-naturalistic" is meant "non-susceptible to scientific investigation." Allport's self is quite "natural," but it must be insisted, secondly, that self-determination, as characterized by non-naturalists, is possessed by that self. The possession of self-determination, so characterized, by a "natural" self makes the distinction between the desires of the physical organism apart from the self and the desires of the self-determined physical organism quite crucial. In terms of this distinction the emotivist must make concessions to non-naturalism; but at the same time, because this distinction follows from the possession of self-determination by a "natural" self, the intuitionist must make concessions to naturalism.

The distinction referred to may be illustrated best by an example. Suppose a man is lost in the desert with a child and both are on the verge of dying from thirst. Suddenly the man comes upon a discarded canteen that contains only a mouthful of water. Suppose, further, that the man experiences a conflict between the demands of his body for water and his sense of obligation toward the child. In order to give the water to the child the man would have to suppress the present need of his own body for water; he would have to judge that, for him, giving the water to the child would contribute more to the continued attainment of value than would drinking the water himself. Such a conflict of desires and consequent judgment would be impossible if, in all cases, his actions were automatically determined by the strongest present demands of the physical organism. If, in even some cases, conflict of desires and deliberation precede action, then the existence of an aspect of human nature capable of determining behavior apart from the present demands of the physical organism must be admitted. The existence of such an aspect of human nature implies an important distinction between what is valued as presently demanded by the physical organism and what is valued as demanded by that aspect of human nature capable of controlling the present demands of the physical organism, i.e., the self. To admit this distinction and the existence of the self in this sense is the only concession required from emotivism for the purpose of resolving conflict between naturalism and non-naturalism.

The intuitionist will feel, in all likelihood, that the merit earned above by stressing self-determination was rapidly abrogated by the insistence that the self is comprehended within the physical organism. That the non-natural or non-physical self is an unnecessary postulate can best be indicated by an analogy. Allport's theory suggests that the self can acquire the ability to integrate and control the interplay of organic needs and external stimuli within the physical organism, and still be an aspect of the physical organism, in roughly the same way an electronic computer can acquire a similar function. An electronic computer, being constructed in a certain way, must be fed information that is "structured" for it. Such information becomes a part of the "memory" of the computer, but in order to possess such a memory the computer does not need to be anything more than a physical system of wires, tubes, and metal. However, in virtue of possessing such information the computer gains the ability to control the way it shall react in the future to all new information. The computer, as it possesses a memory, is not merely an aggregate of information, but is a Gestalt of information that conditions each new stimulus,

and its responses are conditioned by each new stimulus. In this sense the computer is self-determined, and we are even tempted to believe it "thinks"; but such self-determination is an attribute of the computer as only a complex of physical parts.

In a similar fashion the physical organism is structured at birth to be receptive to only certain kinds of stimuli, and in response to these stimuli reaction patterns are established. These reaction patterns tend to become an organized set of successful reaction patterns as those responses that result in conflict tend to be eliminated. This set of successful reaction patterns—Allport's self—is a product of organic responses and external stimuli. But the self is much more than this; it is also a dynamic part of the continually reacting physical organism. The self in these terms tends to preserve its organic integrity and in doing so conditions the interplay of organic responses and external stimuli. The self as it seeks its continuing organic integrity can and does in many cases contravene both organic responses and external stimuli. Thus, the physical organism that is self-determined is not merely a passive recording machine pre-determined to respond automatically to external stimuli in terms of built-in responses. At the same time, the self-determined physical organism does not require for its capacity of self-determination any extra-physical substratum.

IV

It is hoped that this presentation of Allport's theory of the self has revealed an approach to the problem of naturalism versus non-naturalism that suggests a middle ground. In summary, such a middle ground is suggested by consideration of the self as composed of two organically related yet functionally distinct aspects. If the aspect of self as the product of the ongoing drives of the physical organism plus the influences of the external environment is stressed, we arrive at a notion of the self as that which is *determined by* those drives and influences. Such a self seems incapable of determining as valuable anything other than that which satisfies the needs that arise from the interplay of those drives and influences. For such a self, value-judgments seem to be nothing more than expressions of what is demanded by such an interplay. On the other hand, if the aspect of self as that part of man capable of controlling the interplay of internal drives and external influences is stressed, we arrive at a notion of the self as something independent of and other than the product of such an interplay. Such a self seems incapable of accepting as valuable only that which satisfies the needs imposed by the physical organism and the

external environment. For such a self value-judgments must be more than expressions of such needs. However, if the self is composed of both aspects as organically related, it is capable of value-judgments that express both the present needs of the physical organism and the needs imposed by self-determination which makes its survival continually possible.[16]

Such value-judgments would be objective in form, in that all selves value that which makes their continued effectiveness as integrators of internal needs and external demands possible. Current psychological investigations suggest, further, that such value-judgments may be objective also in that all selves are structurally similar.[17] Yet such value-judgments would be subjective in content in that selves possess different psychological and physiological constituents and are modified by different experiences. Thus, exactly *what* will contribute to their continued effectiveness will differ from individual to individual.[18] But the subjective content of value-judgments, though differing from individual to individual, is subsumed by the objective form and is always subject to it. In terms of such subsumption and subjection it is meaningful to ask, "Is it *good* that what I value pleases me?" Yet such subjection cannot be construed as the elimination of the subjective content, for such elimination leaves the self without the means by which to attain its goal. It is also meaningful to ask, "Is it not *evil* that what I value does not please me?"

MANUEL M. DAVENPORT

COLORADO STATE UNIVERSITY

ETHICAL NORMS IN SCIENTIFIC METHOD

IT has became a part of common sense to suppose that science and ethics are diverse realms of inquiry, not to be confused if each is to prosper. Einstein has expressed it thus: "For science can only ascertain what *is*, but not what should be, and outside of its domain value judgments of all kinds remain necessary. Religion, on the other hand, deals only with evaluations of human thought and action; it cannot justifiably speak of facts and relationships between facts." And "representatives of science have often

[16] For a value-theory that is generally consistent with Allport's concept of self, though not intentionally so, see: Lewis, C. I., *An Analysis of Knowledge and Valuation* (Open Court, 1946), Book III, esp. Chap. XVI.

[17] Cf. Vernon, M. D., "The Functions of Schemata in Perceiving," *The Psychological Review*, Vol. 62, p. 182.

[18] *Ibid.*, p. 181.

made an attempt to arrive at fundamental judgments with respect to values and ends on the basis of scientific method, and in this way have set themselves in opposition to religion."[1] This division has been reinforced by those philosophers who make a sharp distinction between 'is' and 'ought,' between non-natural ethical properties and natural properties. The theologians also agree: ethical prescriptions depend upon supernatural foundations. If science is to obtain objective results we cannot allow our value preferences to intrude on our observations and conclusions. This has become a basic axiom for social scientists in the study of other groups and cultures. Is it any wonder that with this vast concurrence of scientists, philosophers, and theologians common sense has come to this view?

But common sense has been wrong before, and knowledge and civilization have advanced through her correction. Contrary to Einstein and common sense it is my contention that scientific method can provide fundamental ethical norms. C. S. Peirce held this position: "The logic which observational science uses is not, like the logic which the books teach, quite independent of the motive and spirit of the reasoner. There is an ethics indissolubly bound up with it—an ethics of fairness and impartiality—and a writer, who teaches, by his example, to find arguments for a conclusion which he wishes to believe, saps the very foundations of science by trifling with its morals."[2]

Part of the world conflict and individual frustration stems from this false dichotomy of science and values. The one genuine international fact, the objectivity of science, has been insulated by this dichotomy from decreasing the conflict among cultures and nations. Any thoughtful individual who has inherited a religious tradition and absorbed the scientific temper of mind is troubled by this dualism. The way out of these conflicts and fabricated solutions is to show that the life of science includes basic ethical norms for civilization.

Why should we turn to science as a foundation for ethical norms? Because, among the many aspects of cultures—religion, language, art, law,—science is trans-cultural in the objectivity of its results. We are not likely to find trans-cultural norms if we attempt to root them in those aspects of cultures that are diverse among them. And even if we could root them in some particularistic creed, the evolution of doctrines in time would provide another dimension of diversity to outmode them. The one

[1] *Symposium on Science, Philosophy and Religion*, New York, 1941.

[2] J. Buchler: *The Philosophy of Peirce*, London, Kegan Paul, 1940, p. 313.

thing that East, West, North, and South have in common is the practice of science. By this I don't mean the latest refinements of technological research. I mean the acquisition of reliable knowledge about matters of fact through observation, hypothesis, and experimentation beginning with their simplest forms. For example: Is this fruit poisonous? Will this hollow log support me on water? and so on to the 20th century. The results are the same for black, white, red, and yellow peoples. In no other facet of culture does this fact of objectivity obtain. This objectivity has been recently challenged but, I think, without success.[3]

Next, note that I say 'reliable knowledge,' not certain knowledge. The history of science makes it quite clear that what is the best information today is improved and altered tomorrow. The probable character, or lack of certainty, of scientific knowledge has served, I think, to encourage the belief that some other form of knowledge is requisite for values. People have often desired their values to be certain. But this is neither necessary nor possible, and the myth had better die. Nor does the lack of certainty lead to skepticism, because the knowledge and the method are sufficient to be self-corrective of their results.

So I suggest as a starting point for the discovery of transcultural ethical norms the practice of science. But, someone will say, are you not assuming as an ultimate value that the practice of science is good, and hence that the norms implicit in it are right? No, I think not. My position is that the practice of science is not a value we choose but rather a fact about man, at least at this stage in his evolution. But are there not other facts about human behavior in cultures that would lead to conflicting ethical norms? People also indulge in idle dreaming, believe fantastic superstitions, and enjoy much wishful thinking. These are not on a par with the practice of science precisely because they lack that trait which science possesses; namely, genuinely successful procedures for the adjudication of differing views. Dreaming, superstition, and wishful thinking show great diversity in methods and results among cultures.

Another related objection is that the practice of science is a trait of only some individuals in our cultures today, while other individuals get along quite happily without it. I do not think this is a fair presentation of the facts. None of us could long survive as individuals without the reliable knowledge of science. This confusion arises from thinking of science as limited to very

[3] M. Polanyi: *Personal Knowledge*, Chicago, Univ. of Chicago Press, 1959.

elaborate research in a laboratory, whereas it is present in the acquisition of our simplest pieces of reliable information. To say we might give all this up is like the dream that tomorrow wood won't float. They are equally facts of observation, the most reliable we have to proceed on. The quest for the ultimate values is a philosopher's trick; it leads nowhere.

If we begin with the practice of science, we encounter another problem. We have said that the content of scientific knowledge changes, sometimes so rapidly that if ethical norms were connected to that content society would at times be in a mess. Furthermore, in the content of scientific knowledge we sometimes encounter conflicting hypotheses. On which hypothesis should we erect our norms? A satisfactory answer is not now available. Nor can we erect our norms on the ways in which scientific activity is carried on by men—the individual giant of the 17th century or the corporate research team of the 20th,—because alternative modes of practice seem to be successful yet suggestive of alternative modes of social organization. The norms we reach should be inclusive of these alternative contents and practices.[4] But these dead ends point to a way out, for the decision between rival hypotheses or practices is made by a common method, the scientific method. I omit a description of it. It is well known.[5] If we can find in the method of science ethical norms requisite for obtaining reliable knowledge, then we shall have shown that science does provide ethical norms, and moreover norms that are not affected by the changing content of science. We need only go on to indicate how these ethical norms are sufficient for social and individual conduct. This is our aim.

Our approach to the discovery of ethical norms in the life of science can now be summarized. We begin by pointing out that the objectivity of science is a common element of cultures and individuals in contrast to other conflicting foundations. We argue that we do not beg the question by assuming that scientific knowledge is good; we assume only that it is a fact about man at this time in his history. We distinguish the content, method, and mode of practice of science, indicating why the content and mode of practice do not provide as stable a foundation as the method.

[4] I think that George Simpson in his book, *Science as Morality* (American Humanist Association Publication, 1954), has made the mistake of leaning too much on the present mode of practice of science even though the norms he extracts are ones I agree with. Given an alternative mode of practice Simpson has no answer.

[5] For one description cf. P. F. Schmidt, "Some Merits and Misinterpretations of Scientific Method," *The Scientific Monthly*, Vol. 82 (1956), pp. 20–24.

We can now analyze the method to make manifest its ethical norms and follow this by some suggestions as to applications.

But our critic will not let us proceed. He thinks that our entire enterprise rests on a basic fallacy. From his perspective what we are attempting to do is to derive ethical judgments from factual statements, derive an 'ought' from an 'is,' to move from a description of scientific method to ethical prescriptions. We are guilty in his view of the factualist fallacy. I agree that one cannot obtain statements about 'what *ought* to be' from statements about 'what *is* the case.' So if we do what our critic charges we must abandon the project. But his attack rests on a frequent misconception of science. He supposes that science concerns only what is. He might cite our opening quotation from Einstein as a source. The view that science concerns only what is the case comes from considering only the content of scientific knowledge. But that content is scientific only if it has been achieved by a particular method. If a method is a means to some goal, it includes prescriptions concerning how one ought to proceed to reach this goal. Such 'oughts' provide the ethical norms necessary to the practice of science. This is how and where science includes values. We cannot just look at *what* science discovers but must inspect *how* it discovers. Thus we do not fallaciously derive values from facts but rather make manifest the values in the method used for obtaining scientific knowledge.

But our critic has another objection. Even if scientific method does contain norms guiding its practice, why should we adopt these norms as a suitable framework governing the relations of nations, groups, and individuals? Haven't we slipped a value premise in at this point? How can we be sure that these norms are *the* norms for society? The answer plainly is, we cannot. But we are no better off in the sciences. A consideration of this parallel helps to show that this search for the ultimate norms is quite unnecessary.

Five hundred years ago thinkers would ask if some new factual claims could be shown to be a really correct picture of nature. Slowly and painfully we have learned that this question cannot be answered, not because of some strange limitations on our knowledge, but because there is no means to answer it and no need to answer it. Our factual knowledge is the best reliable information we can have at a given time, adequate to many problems but not complete. We strive to increase its reliability and scope. Our attitudes are quite well adapted to this situation.

My point is that the search for ultimate ethical norms is the same sort of false quest as the search for the really true account

of nature in the sciences. Rather, I suggest that the ethical norms in scientific method are adequate and reliable for many value decisions, and thus are a suitable starting point. In the course of time we can improve and alter them just as we improve and change our scientific claims. That they are a suitable starting point is a fact about society and science today. They are not smuggled-in value premises.

It is important to point out that giving up the search for ultimate norms does not leave us in moral skepticism. With our suitable basis, we do not need to jump frantically from one absolute panacea to another, each of which leaves the critical mind without solace. We can adopt an attitude toward ethical norms similar to the one we have adopted toward factual claims, though this will not be easy. "Good" and "right," like "true," are signs we use according to whether the proposals are a reliable key to some context of problem and data at some time.

What are some of the norms found in scientific method? First, the norm of tolerance. An analysis of the logic of scientific method makes clear that the results achieved are only probable.[6] We cannot absolutely establish or refute some hypotheses. The door is always open to the formulation of alternative hypotheses. Since we can never claim a given result to be certain, any alternative proposal must be tolerated while a scientific investigation of it is carried out. If it passes this investigation, we shall have to be tolerant of it as an alternative explanation. Tolerance is the prescription to investigate diverse claims to knowledge and to study the consequences of various modes of action. This prescription is a means to the discovery of reliable knowledge as a result of the probable character of scientific theories.

From another perspective, we can see that this logic of scientific method is incompatible with dogmatism. By dogmatism I mean (i) the adherence to a belief as absolutely certain, or (ii) the acceptance of a belief as true without sufficient evidence, or (iii) the adherence to a belief in the face of refutatory evidence. Dogma has been a positive value in some circles but is a cardinal sin for the scientific attitude.

The norm of tolerance is not a misty abstraction. It is the basis for some of the freedoms in the Bill of Rights. Free speech, free assembly, free press, freedom of religion (which means free thought)—these are concrete manifestations of tolerance. They are a means to reliable knowledge. As Laws they show the ethical norm of tolerance embodied in society. As rights and attitudes

[6] *Ibid.*, p 21.

they are guides for individual action. This negative value of the dogmatic is seen in the push toward conformity in thought and action. When conformity is obtained we have the single system in which new hypotheses for advancing reliable knowledge cannot emerge. Conformity is condemned by scientific method.

Closely linked with tolerance is the second norm of scientific method: testability or evidence. If the presentation of diverse hypotheses is not to issue in a chaos of claims each of which demands our equal tolerance, then we must have some means of testing them. Testability is the prescription that one ought to have evidence for novel ideas; otherwise their reliability cannot be checked. Tolerance without testability would issue in a relativity of answers among which no reasonable choice is possible and would foster a skepticism in which one answer is literally as true or good as any other. Without the norm of testability, the selection among alternative hypotheses turns upon irrational forces: on power, on cunning, on authority, and on numbers. These are the negative values revealed by testability.

Concretely, testability takes the form of the value of evidence. This value is an essential part of our legal system. It means that a man has a right to know the charges against him, that a man is innocent until proved guilty, and that a cross-examination of witnesses take place. These rights are the means to evidence corresponding to the laboratory tests of the scientist.

In order for testability to provide reliable knowledge, the tests conducted and evidence presented must satisfy a third norm: objectivity. A test is objective when any trained observer can perform it, and evidence is objective when its reference (what it talks about) is open to public scrutiny. Objectivity makes it possible in principle for anyone to run the test for or against an hypothesis. Objectivity prescribes that one ought to make his tests and evidence public. Without objectivity a person might propound a view which he says he has tested, but no one else can test. Such private insights cannot be disproved, for no one else can test them. But they are worthless as reliable knowledge; for, given a contrary private insight, inquiry is stopped dead in its track. The opposite of objectivity is secrecy. The withholding of information, the hiding of evidence, the closed hearing, the faceless informer, the private test, classified information, wire tapping, and censorship—these are some of the concrete manifestations of secrecy, the denial of objectivity. They all aim at conducting tests or collecting information not open to public scrutiny. They are the slow death of the free advance of science, incompatible with

the pursuit of scientific method. What more concrete imperatives could we want from scientific method than, for example, no faceless informers, no wiretapping, etc.? I think it is amazing that such concrete imperatives are a part of scientific method.

The ethical norms discussed so far relate to the characteristics of scientific method. We now shift our attention to some norms relevant to the people who use this method. The method cannot work by itself, so these norms are equally a part of it.

If hypotheses are to be subjected to objective testability, then those who perform and report such tests must do so with thorough honesty. For to cheat in the process of experimentation cuts out knowledge for you as well as others. All of us can recall that elementary laboratory training in which we were told to report just what we observed no matter what the book said. Lacking certainty for results demands honest presentation of alternatives. Furthermore, the fund of communicated reliable knowledge can increase and persevere only if each investigator reports just what he finds. The practice of honest inquiry leads to another value: trust in the reports of others.

Next, we notice that the presentation of various hypotheses, only a few of which will pass the tests for reliable knowledge, leads to the consequence that our own insights are likely to be discarded, initially or in the course of time. We must be ready to abandon in the face of evidence our own pet theories. Humility is the readiness to sacrifice a pet theory. I do not mean by humility some form of self-abasement. No; it is, rather, the willingness to follow the evidence wherever it leads. Such humility does not preclude clear assertion and forceful argument, but when the evidence is clear, we accept it.

Closely linked with humility is the norm: respect for other persons. If other people are as likely as we are to discover a reliable theory, and if in the process we have to trust the honesty of other observers, then we need to have respect for other individuals as equal to us in the process of inquiry. In the context of action, this norm is particularly important, for the way we evaluate diverse ways of life is by their consequences. But we cannot hope to analyze those consequences unless we permit and respect those who try them out.

Another group of norms can be found in a third perspective on scientific method. We have noticed that the practice of science has diverse forms of social organization: the individual giant like Newton, the pure research of scientific societies, the practical research team of private industry, or the government-directed team. Despite this diversity, there are some goals common to these dif-

ferent modes of practice. These goals can also function as values to guide human activity and choice. Insofar as they do, they are suitable goods for us to aim at.

Each of these modes of practice aims at the acquisition of knowledge, is dedicated to persistent inquiry, and seeks to organize knowledge for the explanation, control, or prediction of natural events. In most cases the practice of science also aims at an increase in the production of power and a reduction in work. The successful pursuit of these goals places value on certain means. Knowledge requires education and learning; persistent inquiry needs a context free of road blocks in every direction allowing free discussion and free travel; explanation demands insight and imagination; prediction calls specifically for a rich development of deductive systems of logic and mathematics; control depends on the fullest growth of engineering, technology, and crafts; and increased productive power and the reduction of work will encourage certain patterns of labor-management organization over others. With respect to all these means, there are a variety of patterns for their realization. Societies can try many combinations and permutations as roads to these goals.

This completes our discussion of some of the ethical norms to be found in scientific method. I think they are both basic and sufficient enough to provide a framework for the relations of nations, groups, and individuals. On the other hand, these norms do not lay down a rigid set of specific imperatives. They allow the practice of diverse specific moral codes. By so doing they provide the context for the discovery, trial, change, and evaluation of moral codes as our knowledge advances. The ethical norms provide a sort of higher-level set of values to prevent the specific codes from killing each other off, as they have often tried to do in the history of mankind.

Thus it is that the international character of science can supply an international set of ethical norms.

OBERLIN COLLEGE

PAUL F. SCHMIDT

MILL'S "NOTORIOUS ANALOGY"[1]

VARIOUS critics have charged that Mill's analogy between "visible" and "desirable" is an almost inexplicable logical blunder. I propose to show that the analogy makes good sense in its context. A succinct statement of the analogy occurs in *Utili-*

[1] This article is a revision of a paper read at the Fifth Interamerican Congress of Philosophy, Washington, D. C., July 8, 1957.

tarianism, Chapter IV: "The only proof capable of being given that an object is visible, is that people actually see it. . . . In like manner, I apprehend, the sole evidence it is possible to produce that anything is desirable, is that people do actually desire it."

G. E. Moore thought this passage a particularly flagrant instance of the "naturalistic fallacy," Moore's epithet for the attempt to define "good" or "desirable" wholly in terms of natural qualities.[2] Specifically, Moore accused Mill of seeking to learn what is desirable by inquiring into what is actually desired, and (quite another indictment) trying to show that "good" means "desired." Moore, like many other philosophers, held that Mill's fallacy is obvious, and regarded his failure to see it as "quite wonderful." The alleged fallacy, of course, is to treat "visible" and "desirable" as analogues, although "visible" means simply "able to be seen," while "desirable" means not simply "able to be desired," but rather "ought to be desired." Even some who question the legitimacy of the "naturalistic fallacy"—W. K. Frankena,[3] for example—agree that Mill's analogy is unsound. And Morton White, though disposed toward a naturalistic analysis of value, has referred to Mill's parallel as his "notorious analogy," apparently for reasons like Moore's.[4] White believes, moreover, that Dewey has made a similar error in his theory of value.

Mill's context is his "proof" of the utilitarian doctrine that "happiness is desirable and the only thing desirable, as an end." His critics usually ignore the phrase "as an end," and hence present his analogy roughly as follows: "x is seen" implies "x is visible"; similarly "x is desired" implies "x is desirable." The context shows, however, that Mill was concerned with the desirable *as an end.* Inserting this phrase appropriately, his "proof" is:

1. "The sole evidence it is possible to produce that anything is desirable (as an end) is that people do actually desire it (as an end)."
2. ". . . there is in reality nothing desired (as an end) except happiness." Therefore,
3. ". . . happiness is desirable, and the only thing desirable, as an end."

Assuming that *something* is desirable, this argument is valid, but are its premises true?

[2] *Principia Ethica,* Cambridge, 1929, pp. 66–67.

[3] "The Naturalistic Fallacy," *Mind,* Vol. 48 (1939), p. 468.

[4] "Value and Obligation in Dewey and Lewis," *Philosophical Review,* Vol. 58 (1949), p. 321.

It should be admitted that 2 is not even plausible without the qualification "as an end." But even with this qualification, Mill recognized that it may be doubted, and devoted most of Chapter IV of *Utilitarianism* to evidence for it, finally calling upon thoughtful readers to judge its truth for themselves. I think we must agree that Mill makes 2 plausible, although contemporary psychologists would certainly question it. Mill, however, did not believe that ultimate ends are ever susceptible of complete demonstration; he argued that at best they must be plausible principles based on experience.

Unlike his critics, Mill seemed to think that 1 required little or no evidence. Let us examine 1 in the light of his analogy, assuming (like Mill's critics) that "desirable" means "ought to be desired." All agree that "desired" implies "able to be desired" just as "seen" implies "able to be seen." Further, "ought to be desired" implies "able to be desired," since it is absurd to say that one ought to do what he cannot. Finally, "visible" both *means* and implies "able to be seen." Schematically, where the arrow symbolizes the relation and direction of implication, the analogy is as follows:

"seen"→"able to be seen"↔"visible"
"desired"→"able to be desired"←"desirable"

Since the first pattern has an equivalence where the second has an implication, the analogy is imperfect as Mill apparently recognized, since he refers to desiring merely as evidence for desirability. The question is, does this imperfect analogy suggest an interpretation that would make 1 plausible? I believe it does. "Desirable (as an end)" implies "able to be desired (as an end)." It follows that what is not able to be desired as an end cannot be desirable as an end. Hence to show that x is desired as an end is *necessary* (but not sufficient) to showing that x is desirable as an end. In short, I suggest that Mill may not be saying "if x can be desired, x is desirable," but rather the converse, "If x is desirable, then x can be desired." (This does not preclude the possibility of other relationships.)

On this interpretation, Mill's argument may be put thus:

1′. What ought to be desired as an end is able to be desired as an end.
2′. *Only* happiness is able to be desired as an end. Therefore,
3′. Happiness is the only thing desirable as an end.

This argument is valid, its premises are plausible, and its conclusion not absurd. It should be noted, however, that it would be neither plausible nor valid if shorn of the modification "as an end." Without this, one could not reasonably say "*only* happiness . . . " and without the "only" we would simply have an example of the fallacy of the undistributed middle.

If this analysis is sound, Mill's critics have misconstrued his argument by ignoring his context and taking him to say that desire implies desirability, or even that desire and desirability are equivalent. And if Mill did argue thus, his analogy deserves to be as notorious as it has become. But even omitting the reference to end (as Mill himself literally does) there is some justification for his claim that the only producible evidence for desirability is desire. Since all candidates for desirability must be capable of being desired, the only clearly available method is to inquire which are actually in the field. This does not require a direct logical relationship between the terms. In particular, we are not forced to say that whatever one desires is desirable. That these terms share two syllables may be logically insignificant. On the other hand, it seems absurd to hold that there is no relationship whatever. Could something be desirable which no one ever did or will desire? Could all who ever lived or will live desire something which nevertheless is not desirable? It is true that when we turn from extremes there seems to be no clear way of analyzing the relationship in question. Outside a context in which there is a rigid means-end distinction and in which only one end is desired, its properties seem so vague as to be practically useless. But this vagueness licenses no one to overclarify the argument until Mill appears to say that whatever one wants is good.

This valid employment of Mill's analogy thus depends upon the means-end distinction, which is justified by a tradition at least as ancient as Aristotle. Yet Mill himself argues that virtue, money, and other things, originally only means to happiness, may come to be desired for themselves, an admission which seems to blur the distinction. It may be that a rigid enough dichotomy is untenable.

Dewey admired the utilitarian attempt to connect value with human actualities, but his rejection of the rigid means-end distinction required him to deny that there is any fixed end which ought always to be desired, and he explicitly rejected the utilitarian contention that happiness is such an end.[5] Hence when Dewey uses

[5] *Reconstruction in Philosophy*, New York, 1920, pp. 180–181.

"desired" and "desirable" he always intends to add a phrase like "in a given situation," and it is as futile to discuss his theory without this addendum as it is to discuss Mill's without its proper qualification. Instead of "visible," however, Dewey suggests "edible" as an (imperfect) analogy of "desirable."[6] And since no one doubts that inedible things are eaten, no one should accuse Dewey of holding that "desired" implies "desirable," much less that they are equivalent. Nevertheless, Dewey also seems to proceed illicitly from what is to what ought to be desired. Characteristically, he stresses the analogy between the *methods* used to determine the edible and the desirable; but here, too, there is a tantalizing vagueness, which may yet be preferable to clear dogmatism.

The present analysis seems less strained than that which interprets Mill's analogy as utter nonsense, and offers an alternative to charging him with an oversight which really would be "quite wonderful."

GEORGE A. CLARK

LAFAYETTE COLLEGE

BOOK REVIEW

Man's Ultimate Commitment. HENRY NELSON WIEMAN. Carbondale: Southern Illinois University Press, 1958. x, 318 pp. $5.95.

The limits of a brief review make impossible a full account of the far-searching "creative interchange" that is established between the reader and the author of this book. This reviewer's first-hand acquaintance with the thought of Henry Nelson Wieman goes back to his provocative Christian classic, *The Source of Human Good.* The present work seems a sequel to the earlier interpretation of religion and the idea of God. Here again we discover Dr. Wieman's basic theme of "God" as "the Creative Event" or "Creative Good," now rendered by the prevailing expressions "creative interchange," "creative communication," "creative transformation," or simply "creativity."

In the earlier work Dr. Wieman wrote that "there is an order antecedent to man," working toward emergent wholes, or "new structures of interrelatedness," on every level of nature: inorganic, organic, mental-moral, social-spiritual. These emergent wholes are the seats and reality of all values. The supreme emergent wholes or

[6] *The Quest for Certainty,* New York, 1920, p. 266.

values have their seats in man's self-conscious personal life or experience, sentient and aesthetic, scientific and philosophic, moral, social, and religious. This order of emergent wholes and values defines the very structure, meaning, and seeming "intent" of process or evolution itself. It is accordingly objective and cosmic; that is, it is trans-human, more than human, though it comes to fullest expression in the human realization of true values—i.e., those of the Graeco-Hebrew-Christian tradition, the humane and democratic West, and any other humane values of other traditions. The objectivity of this creative reality is affirmed again in the work now under review (pp. 76, 91–93, 132). It is perilous for man not to perceive and heed this structured order of the world-in-process. Individuals, groups, and generations will be judged by the "Creative Event" according to whether they perceive and heed. If they will perceive and heed they will experience joy, fulfillment, happiness, and social harmony; if they do not perceive and heed, they will be ignored by the Creative Event and abide in misery, frustration, strife, and death. The Creative Event will deliver its opportunity to others more responsive to its demands. The Creative Event is not itself self-conscious, Cosmic Mind or Person, like the God of traditional theism. It is rather an impersonal value-moral structure (?) immanent in nature, an impersonal "moral law" (letting "moral" define all realms of value, including the value of knowledge). Or, if it is not to be defined as "structure," which may connote a too definite, antecedently existing Form or Forms of being (an idealism which Wieman would probably disclaim), then perhaps it is more correct to say that the ultimate which Wieman means is the *potentiality* of nature to have such value-moral structure.

Man's Ultimate Commitment seems to be a conscious attempt to summarize into a completed philosophic position the theme of the earlier book, a theme now applied to a number of philosophically technical and also humanly and socially practical problems. These extend from the problems of knowledge, reason, faith, freedom, and the ultimate itself, as "creative interchange," to the application of creative interchange to church, education, industry, government, history, and to the commitment of the individual personally, in his effort to find supreme meaning for life. The first part of the book attends to the more technical issues; the second part to the social, historical, and personal problems. For this reviewer Chapter 1, "The Problem of Religious Faith," and Chapters 13 and 14, "History Under Commitment" and "The

Decision Required of Us," express the essential thesis of the book, though the other chapters are by no means to be neglected.

To come directly now to matters of deeper philosophic concern: this reviewer finds himself in whole-hearted agreement with the practical thesis of the book, that is to say, with its high ethical personalism. *Man's Ultimate Commitment* is an eloquent dissertation on the sanctity and supremacy (at least on our finite plane of being) of personality and the "uniqueness of individuality." In the mind of this reviewer, however, some of the book's deeper metaphysical judgments leave open a major critical question, which undercuts the strength of the ethical personalism that the author affirms.

On the positive side, we consider this book an eminent contribution to ethical personalism, presented in the terminology of a Christian form of "critical naturalism." The problem of the book, and its solution, is stated by Wieman in the following lines:

> What operates in human life with such character and power that it will transform man as he cannot transform himself, to save him from the depths of evil and endow him with greatest good, provided that he give himself over to it with whatsoever completeness of self-giving is possible for him? [P. 11.]

The answer is "creative interchange":

> It occurs when the individual finds one or more persons with whom he can engage in that kind of interchange which creates in each an awareness of the original experience of the other person and at the same time a recognition of the exceeding preciousness of this original experience. . . . [P. 16.]

> Creative interchange is that kind of interchange which creates in those who engage in it an appreciative understanding of the original experience of one another. [P. 22.]

These statements lead to Wieman's general definition of value:

> Creative interchange provides the standard for judging what is good and what is evil in human life. The good is what sustains, promotes or favors the creation of appreciative understanding between individuals and peoples. The evil is what hinders or prevents this kind of interchange. [P. 25.]

To have this personal sense of value and to guide life into its realization is "the religion of creativity." In a forceful way later on, the book applies this thesis to the practical areas of life previously mentioned. One can only rejoice in such thought and such writing.

One of the especially valuable portions of the book to a general ethical personalism is its searching analysis in Chapter 5, "The Guide to Greater Good," of individuality as criterion of value. In sixteen impressive principles the author attempts to say in detail

just what "the major values derived from creative exchange" are. This alone would be a large contribution.

In Chapter 2, "From Drift to Direction," he analyzes with keen accuracy the crisis of our era as that concerning the increasing inter-dependence of men, and rightly affirms that only his religion of creativity can meet the crisis.

> . . . the interdependence and power now increasing will enable creative interchange to lift human life to richness of experience and amplitude of personality not before possible, if and when creative interchange is recognized and accepted as commanding the ultimate commitment of man. [P. 50.]

The author contrasts the two contesting types of solution to this crisis (which does indeed constitute the immanent dialectic of our era) in terms of "mutual control," based on the freedom of men, "as over against authoritarian control," and affirms that,

> . . . mutual control achieved by way of creative interchange is the only way to escape the ever-tightening, degrading and corrupting coercions of authoritarian control. [P. 53.]

Finally in his two concluding chapters, on history and individual commitment, Wieman says that personal creative interchange is the very "creativity of history" itself, and that it "can," if we let it, "save us":

> . . . Western man . . . can be saved because there is a way of salvation open to him. . . . Nothing short of the most complete commitment to the creativity of history can save him. . . . Creative transformation of the mind by commitment to the kind of interchange which produces appreciative understanding of one another can save us. Nothing else can. [P. 283.]

Wieman's book is a refreshing call to a sound, sane, historical optimism. It is the liberal, and essentially true, form of the Hebrew-Christian interpretation of life. It comes as an inspiring challenge to the many current, "paradoxical" and pessimistic views of man and his historic possibilities.

On the negative side, this book falls short of the deeper ranges of a Hebrew-Christian personalism that founds its ethics in a personal concept of Ultimate Reality. The standard of the supremacy in value and being of our finite persons is the ultimacy of personality in being-as-a-whole—at least this seems the fullest intimation of Biblical thought. In the present book, as in the earlier mentioned work, Wieman consciously avoids a personalistic metaphysics. He expressly says that, though he criticizes Tillich's ontology, he thinks Tillich is not "in error" when he maintains that the ground or "power of being" is impersonal (pp. 124, 128). Wieman acknowledges that his "creativity which works between

people in the form of interchange, and also within each individual, may be only a shallow, superficial manifestation of an infinite Being of mystery"; which, however, "we can make no statement about . . . except to acknowledge it, precisely because it is a mystery" (p. 34). True to the central spirit of the critical naturalistic side of his thought, he believes it is idle to speculate beyond this point.

> . . . all attempt to find what should command the ultimate commitment by peering into the depths and heights of Being outside of human life, or into eternity or the supernatural, is to seek where it can never be found. [P. 77.]

Wieman does describe this "infinite Being"—while at the same time he cautions us that his description is "only a figure of speech" —as possibly "a formless, vast, unfathomed ocean of quality waiting to be structured in such form that it can be brought to awareness" (p. 84). This resembles the Undifferentiated Absolute of impersonalistic forms of Idealism, eastern and western, a tendency which is also strikingly prominent today in Tillich's trans-Christian, "Christian philosophy." Neo-Orthodoxy's basic irrationalism seems to lead to Tillich's metaphysical impersonalism, and to lie down in a common bed with the "liberal" impersonalistic naturalism of Wieman!

In sum, it seems to this reviewer that there is here no answer when we ask, Why is personality on our plane ultimate in status and value, and how can we jutisfy the emphasis on personal, creative interchange that Wieman describes so forcefully on pages 115 and 116? What ultimately condemns the authoritarian mode of solving our personal and social problems, a mode which he so thoroughly despises? Though it may be true that the validity of "creativity" and "the ultimate commitment" may be found, or discovered, or validated, in the concrete confrontations of life in experience (the epistemological premise of his essay), those experiences are such because of a prior sanctity of the human person himself, the highest work of a like nature of Being.

DOUGLAS STRATON

COLORADO COLLEGE

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